

## ABSTRACT

A wiring harness design is analyzed and module data is created automatically and stored for a plurality of harness modules representing wire and component element requirements for those modules, the modules being capable of assembly in selected combinations to create a complete harness. In various embodiments, harness elements are assigned to modules, at least some of the elements are available to a plurality of modules, an element which is available to a plurality of modules that may be used together is assigned to only one of that plurality of modules but is available to all of that plurality of modules, permissible relationships between modules are stored, modules are selected for use in a harness, and a validation check is carried out automatically with reference to the stored permissible relationships between modules, and wire and component element requirements for the harness using the selected modules are calculated automatically having regard to the assignment of elements to modules, so that an element that is required for two modules that are to be used together will be noted as being required physically only once.